AMSAT News Service Weekly Bulletins
Issue: ANS-311
Date: 2010-11-07
Sources: amsat-ans-2010-ans-311-weekly.txt

AMSAT NEWS SERVICE
ANS-311

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:

ans-editor@amsat.org

In this edition:
* November AO-51 Schedule
* Hudson Valley SatCom Net
* November 15 Deadline for NASA CubeSat Initiative Proposal
* AMSAT-UK FUNcube Frequencies Now Confirmed
* FO-29 Status Update
* OSCAR-11 REPORT 31 October 2010
* ARISS Status - 1 November 2010

SB SAT @ AMSAT $ANS-311.01
November AO-51 Schedule

AMSAT News Service Bulletin 311.01
  From AMSAT HQ SILVER SPRING, MD.
November 7, 2010
To All RADIO AMATEURS
BID: $ANS-311.01

AMSAT-NA VP Operations, Drew KO4MA published the November schedule for AO-51. Drew wrote, "This month we are catching up on several requests for L, S and even 38k4 BBS time. In January AO-51 leaves continuous illumination for many years and many of these modes may not be possible due to power budget and battery condition. However, if we find these modes under used this month, we may modify the schedule as we go.

October 31 (late UTC)
FM Repeater, L/SU
Uplink: 1268.705 MHz FM (no PL tone)
Downlinks: 2401.200 MHz FM and 435.300 MHz FM (at low power!)

November 4 (late UTC)
FM Repeater, V/U
Uplink: 145.920 MHz FM (no PL tone)
Downlink: 435.300 MHz FM

9k6 Baud PBBS Operations, L/U
Uplink: 1268.705 MHz FM at 9600 baud
Downlink: 435.150 MHz FM at 9600 baud

November 14 (late UTC)
38k4 Baud PBBS Operations, L/U
Uplink: 1268.705 MHz FM at 9600 baud
Downlink: 435.150 MHz FM at 38,400 baud

November 18 (late UTC)
FM Repeater, L/SU
Uplink: 1268.705 MHz FM (no PL tone)
Downlinks: 2401.200 MHz FM and 435.300 MHz FM (at low power!)

November 21 (late UTC)
FM Repeater, V/U
Uplink: 145.920 MHz FM (no PL tone)
Downlink: 435.300 MHz FM

9k6 Baud PBBS Operations, L/U
Uplink: 1268.705 MHz FM at 9600 baud
Downlink: 435.150 MHz FM at 9600 baud

SO-67 is active over North and South America this month, according to the schedule at http://www.amsatsa.org.za/ . V/U users of AO-51 are encouraged to try SO-67 while AO-51 is in mode L/US.

Read the latest AO-51 Control Team News on the AMSAT web at: http://www.amsat.org/amsat-new/echo/CTNews.php

[ANS thanks Drew, KO4MA for the above information]

/EX

SB SAT @ AMSAT $ANS-311.02
Hudson Valley SatCom Net

AMSAT News Service Bulletin 311.02
From AMSAT HQ SILVER SPRING, MD.
November 7, 2010
To All RADIO AMATEURS
BID: $ANS-311.02

The next Hudson Valley Sat com Net will be Thursday Noveber 11 on the Mt. Beacon ARC 146.970 MH repeater and on EchoLink via the N2EYH-L node. Net starts at 8PM EST (UTC - 5). More information is available at http://www.hvsatcom.org and wa2aqh@amsat.org.

[ANS thanks Stu, WA2BSS for the above information]

/EX

SB SAT @ AMSAT $ANS-311.03
November 15 Deadline for NASA CubeSat Initiative Proposal

AMSAT News Service Bulletin 311.03
From AMSAT HQ SILVER SPRING, MD.
November 7, 2010
To All RADIO AMATEURS
BID: $ANS-311.03

NASA made the first open announcement to create an agency-prioritized list of available CubeSat auxiliary payloads in April 2010. Additional CubeSat launch capacity is still available in 2011 and 2012, so NASA released a second announcement of CubeSat integration and launch opportunities. CubeSat mission proposers must still be educational institutions and contribute to NASA strategic goals and outcomes.

Investigations proposed for this pilot project must address an aspect of science, exploration, technology development, education or operations encompassed by NASA's strategic goals and outcomes as identified

in the NASA Strategic Plan and/or NASA's Education Strategic Coordination Framework.

Collaborators may be required to provide partial reimbursement of approximately $30,000 per CubeSat. NASA will not provide funding to support CubeSat activity or development. Selection does not guarantee an availability of a launch opportunity.

The complete CubeSat Launch Initiative Announcement can be viewed on-line at NASA.gov at http://tinyurl.com/2b97n6r.

[ANS thanks NASA for the above information]

/EX

SB SAT @ AMSAT $ANS-311.04
AMSAT-UK FUNcube Frequencies Now Confirmed

AMSAT News Service Bulletin 311.04
  From AMSAT HQ SILVER SPRING, MD.
November 7, 2010
To All RADIO AMATEURS
BID: $ANS-311.04

Trevor, M5AKA reported the IARU Amateur Satellite Frequency Coordination panel has announced coordinated frequencies for the AMSAT-UK FUNcube 1U CubeSat.

The frequencies are:

Inverting linear transponder:
Uplink 435.080 - 435.060 MHz Downlink 145.960 - 145.980 MHz

Beacon 145.955 MHz CW and 1200 bps BPSK

FUNcube website
http://www.FUNcube.org.uk/

FUNcube SDR Dongle
http://www.FUNcubeDongle.com/

FUNcube Yahoo Group
http://groups.yahoo.com/group/FUNcube/

[ANS thanks Trevor, M5AKA and AMSAT-UK for the above information]

/EX

SB SAT @ AMSAT $ANS-311.05
FO-29 Status Update

AMSAT News Service Bulletin 311.05
  From AMSAT HQ SILVER SPRING, MD.
November 7, 2010
To All RADIO AMATEURS
BID: $ANS-311.05

Yutaka Murata, JA1COU reported news from the Japan Amateur Radio League (JARL) FO-29 command team testing this past weekend when continuous commands were transmitted to the satellite when it was in range of Japan.

The current hypothesis of the recent shutdown of the satellite is that the temperature aboard FO-29 is too high to allow continuous operations and to accept commands or any other satellite operations.

Eclipse of FO-29 is:
November 1   0% (full illumination)
November 20 14%
November 30 17%

It is expected that the temperature aboard FO-29 will drop as the length of eclipse increases. FO-29 is designed to work over a wide temperature range. Because of degradation over time in orbit it is possible that some components may have lower performance. The JARL Command Team hopes that FO-29 will accept commands and resume operation when the temperature cools down during increased eclipse.

[ANS thanks Yutaka Murata, JA1COU for the above information]

/EX

SB SAT @ AMSAT $ANS-311.06
OSCAR-11 REPORT 31 October 2010

AMSAT News Service Bulletin 311.06
  From AMSAT HQ SILVER SPRING, MD.
November 7, 2010
To All RADIO AMATEURS
BID: $ANS-311.06

This report covers the period from 30 September to 31 October 2010. During this time the satellite has been heard from 09 to 19 October and from 30 October. At the time of writing it is transmitting and is expected to continue until 09 November.

Excellent signals have been reported from stations located around the world, and good copy obtained from decoded telemetry frames.

The satellite is now transmitting during eclipses, although signals are weaker at those times. This indicates that there is still some capacity remaining in the battery.

The on-board clock is now very stable. It gained only ten seconds in 33 days. This is comparable with its accuracy when the satellite was fully operational, when it gained approximately one minute per year. However, there is still an accumulated loss of 309 days, which has occurred during eclipses of the last few years.

Operation during eclipses and stability of the on-board clock suggest that some part of the system may have recently failed 'open circuit' thus reducing the overall power drain of the system, and allowing more power to be available during eclipses. There was an unexplained current drain observed when analogue telemetry was last transmitted. This fault might have cleared.

The Beacon frequencies are -

   VHF 145.826 MHz. AFSK FM ASCII Telemetry

UHF 435.025 MHz. OFF

S-band 2401.5 MHz. OFF

Reception reports have been received from Jeff N3QO, Rod CX2ABP and Ian KI4HLV/6Y5 (G4JMM) . Many thanks for those and to everyone who posted reports on the satellite status website. This is a very convenient and easy to use facility, which shows the current status of all the amateur satellites. Strongly recommended for future reports! Reports around the expected times of switch-on and switch-off are of special interest. The URL is http://oscar.dcarr.org/index.php

OSCAR-11 transmits on 145.826 MHz., set receiver to NBFM. The satellite has a characteristic sound, rather like raspy slow morse code, sending "di di dah dah dah dah dah dah dah" sent over a period of five seconds. If you are receiving a very weak signal, switch the receiver to CW or SSB. You should hear several sidebands around the carrier frequency and should be able to hear the characteristic 'morse code like' sound on at least one sideband.

Please note that you need a clean noise-free signal to decode the signals, and your receiver must be set to NBFM mode, for a decoder to work.

If you need to know what OSCAR-11 sounds like, there is an audio clip on my website www.g3cwv.co.uk/ which may be useful for identification and as a test signal for decoding.

The current status of the satellite, is that all the analogue telemetry channels, 0 to 59 are zero, ie they have failed. The status channels 60 to 67 are still working. The real time clock is showing a large accumulated error, but is now incrementing accurately to within a few seconds per month. The day of the month has a bit stuck at 'one' so the day of the month may show an error of +40 days for some dates. The time display has switched into 12 hour mode. Unfortunately, there is no AM/PM indicator, since the time display format was designed for 24 hour mode.

The spacecraft computer and active attitude control system have switched OFF, ie. the satellite' attitude is controlled only by the passive gravity boom gradient, and the satellite is free to spin at any speed.

The watchdog timer operates on a 20 day cycle. The ON/OFF times have tended to be very consistent. The average of many observations have shown this to be 20.7 days, ie. 10.3 day s ON followed by 10.4 days OFF.

Listeners to OSCAR-11 may be interested in visiting my website. If you need to know what OSCAR-11 should sound like, there is a short audio clip for you to hear. The last telemetry received from the satellite is available for download. The website contains an archive of news & telemetry data which is updated from time to time. It also contains details about using a sound card or hardware demodulators for data capture. There is software for capturing data, and decoding ASCII telemetry. The URL is www.g3cwv.co.uk .

If you place this bulletin on a terrestrial packet network, please use the bulletin identifier $BID:U2RPT150.CWV, to prevent duplication.

73 Clive G3CWV xxxxx@amsat.org (please replace xxxxx by g3cwv)

[ANS thanks Clive, G3CWV, for the above information]

/EX

SB SAT @ AMSAT $ANS-311.07
ARISS Status - 1 November 2010

AMSAT News Service Bulletin 311.07
  From AMSAT HQ SILVER SPRING, MD.
November 7, 2010
To All RADIO AMATEURS
BID: $ANS-311.07

1. Successful ARISS Contact with Funakata Elementary

On Friday, October 29, an Amateur Radio on the International Space Station (ARISS) contact was held between students from Funakata Elementary School in Nagoya, Aichi, Japan and astronaut Shannon Walker, KD5DXB on the International Space Station (ISS). The youth were able to get in 16 questions before the ISS went over the horizon. Approximately seventy students, guests and media were present.

2. Astronaut Training Status

Astronauts Joe Acaba, KE5DAR and Aki Hoshide, KE5DNI participated in simulated ARISS school contacts with students attending Ralph McCall School in Airdrie, Alberta, Canada on Tuesday, October 26. The training sessions were terrestrial-based amateur radio contacts using ARISS equivalent equipment.

Acaba, who is slated to fly with Expedition 31, also had an ARISS refresher course on Wednesday, October 27 for his upcoming mission in 2012.

[ANS thanks Carol, KB3LKI, for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

73,
This week's ANS Editor,
Lee McLamb, KU4OS